0420

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RAW SEQUENCE LISTING                    DATE: 12/05/2001
PATENT APPLICATION:  US/09/973,451      TIME: 15:57:15

      Input Set : N:\Crf3\RULE60\09973451.raw
      Output Set: N:\CRF3\12052001\I973451.raw
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 1 <110> APPLICANT: JACOBSON, Myron K.
 2        JACOBSON, Elaine L.
 3        AM, Jean-Christophe
 4        LIN, Winston
 5 <120> TITLE OF INVENTION: GENES ENCODING SEVERAL POLY(ADP-RIBOSE) GLYCOHYDROLASE
 6        (PARG) ENZYMES,
 7        THE PROTEINS AND FRAGMENTS THEREOF, AND ANTIBODIES IMMUNOREACTIVE
 8        THEREWITH
 9 <130> FILE REFERENCE: NIAD 201
10 <140> CURRENT APPLICATION NUMBER: 09/973,451
11 <141> CURRENT FILING DATE: 2001-10-09
12 <150> PRIOR APPLICATION NUMBER: US/09/302,812
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19 <211> LENGTH: 4070
20 <212> TYPE: DNA
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29        gctgggacgc cgctgcaact tctccgccgg ccgcctcgga cgcccggagc ttccccggca 360
30        ggcagaggcg cgtcctcgat tccaaggacg ctccggtgca gttcagggtc ccgccgtcct 420
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105     Phe Arg Val Pro Pro Ser Ser Ser Gly Cys Ala Leu Gly Arg Ala Gly
106         50                  55                  60
107     Gln His Arg Gly Ser Ala Thr Ser Leu Val Phe Lys Gln Lys Thr Ile
108     65              70                  75                      80
109     Thr Ser Trp Met Asp Thr Lys Gly Ile Lys Thr Val Glu Ser Glu Ser
110                 85                  90                  95
111     Leu His Ser Lys Glu Asn Asn Asn Thr Arg Glu Glu Ser Met Met Ser
112                 100                 105                 110
113     Ser Val Gln Lys Asp Asn Phe Tyr Gln His Asn Met Glu Lys Leu Glu
114             115             120                 125
115     Asn Val Ser Gln Leu Gly Phe Asp Lys Ser Pro Val Glu Lys Gly Thr
116         130                 135                 140
117     Gln Tyr Leu Lys Gln His Gln Thr Ala Ala Met Cys Lys Trp Gln Asn
118     145                 150                 155                 160
119     Glu Gly Pro His Ser Glu Arg Leu Leu Glu Ser Glu Pro Pro Ala Val
120                 165                 170                 .175
121     Thr Leu Val Pro Glu Gln Phe Ser Asn Ala Asn Val Asp Gln Ser Ser
122             180                 185                 190
123     Pro Lys Asp Asp His Ser Asp Thr Asn Ser Glu Glu Ser Arg Asp Asn
124             195                 200                 205
125     Gln Gln Phe Leu Thr His Val Lys Leu Ala Asn Ala Lys Gln Thr Met
126         210                 215                 220
127     Glu Asp Glu Gln Gly Arg Glu Ala Arg Ser His Gln Lys Cys Gly Lys
128     225                 230                 235             240
129     Ala Cys His Pro Ala Glu Ala Cys Ala Gly Cys Gln Gln Glu Glu Thr
130                 245                 250                 255
131     Asp Val Val Ser Glu Ser Pro Leu Ser Asp Thr Gly Ser Glu Asp Val
132             260                 265                 270
133     Gly Thr Gly Leu Lys Asn Ala Asn Arg Leu Asn Arg Gln Glu Ser Ser
134             275                 280                 285
135     Leu Gly Asn Ser Pro Pro Phe Glu Lys Glu Ser Glu Pro Glu Ser Pro
136         290                 295                 300
137     Met Asp Val Asp Asn Ser Lys Asn Ser Cys Gln Asp Ser Glu Ala Asp
138     305                 310                 315                 320
139     Glu Glu Thr Ser Pro Gly Phe Asp Glu Gln Glu Asp Ser Ser Ser Ala
140                 325                 330                 335
141     Gln Thr Ala Asn Lys Pro Ser Arg Phe Gln Pro Arg Glu Ala Asp Thr
142             340                 345                 350
143     Glu Leu Arg Lys Arg Ser Ser Ala Lys Gly Gly Glu Ile Arg Leu His
144             355                 360                 365
145     Phe Gln Phe Glu Gly Gly Glu Ser Arg Ala Gly Met Asn Asp Val Asn
146         370                 375                 380
147     Ala Lys Arg Pro Gly Ser Thr Ser Ser Leu Asn Val Glu Cys Arg Asn
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RAW SEQUENCE LISTING   DATE: 12/05/2001
PATENT APPLICATION: US/09/973,451   TIME: 15:57:15

Input Set : N:\Crf3\RULE60\09973451.raw
Output Set: N:\CRF3\12052001\I973451.raw

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153      His Gln Arg Thr Glu Arg Lys Ile Pro Lys Tyr Ile Pro Pro His Leu
154                  435                 440                 445
155      Ser Pro Asp Lys Lys Trp Leu Gly Thr Pro Ile Glu Glu Met Arg Arg
156                  450                 455                 460
157      Met Pro Arg Cys Gly Ile Arg Leu Pro Pro Leu Arg Pro Ser Ala Asn
158      465                 470                 475                 480
159      His Thr Val Thr Ile Arg Val Asp Leu Leu Arg Ile Gly Glu Val Pro
160                  485                 490                 495
161      Lys Pro Phe Pro Thr His Phe Lys Asp Leu Trp Asp Asn Lys His Val
162                  500                 505                 510
163      Lys Met Pro Cys Ser Glu Gln Asn Leu Tyr Pro Val Glu Asp Glu Asn
164                  515                 520                 525
165      Gly Glu Arg Ala Ala Gly Ser Arg Trp Glu Leu Ile Gln Thr Ala Leu
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167      Leu Asn Arg Leu Thr Arg Pro Gln Asn Leu Lys Asp Ala Ile Leu Lys
168      545                 550                 555                 560
169      Tyr Asn Val Ala Tyr Ser Lys Lys Trp Asp Phe Thr Ala Leu Ile Asp
170                  565                 570                 575
171      Phe Trp Asp Lys Val Leu Glu Glu Ala Glu Ala Gln His Leu Tyr Gln
172                  580                 585                 590
173      Ser Ile Leu Pro Asp Met Val Lys Ile Ala Leu Cys Leu Pro Asn Ile
174                  595                 600                 605
175      Cys Thr Gln Pro Ile Pro Leu Leu Lys Gln Lys Met Asn His Ser Ile
176                  610                 615                 620
177      Thr Met Ser Gln Glu Gln Ile Ala Ser Leu Leu Ala Asn Ala Phe Phe
178      625                 630                 635                 640
179      Cys Thr Phe Pro Arg Arg Asn Ala Lys Met Lys Ser Glu Tyr Ser Ser
180                  645                 650                 655
181      Tyr Pro Asp Ile Asn Phe Asn Arg Leu Phe Glu Gly Arg Ser Ser Arg
182                  660                 665                 670
183      Lys Pro Glu Lys Leu Lys Thr Leu Phe Cys Tyr Phe Arg Arg Val Thr
184                  675                 680                 685
185      Glu Lys Lys Pro Thr Gly Leu Val Thr Phe Thr Arg Gln Ser Leu Glu
186                  690                 695                 700
187      Asp Phe Pro Glu Trp Glu Arg Cys Glu Lys Leu Leu Thr Arg Leu His
188      705                 710                 715                 720
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191      Val Asp Phe Ala Asn Arg Phe Val Gly Gly Gly Val Thr Ser Ala Gly
192                  740                 745                 750
193      Leu Val Gln Glu Glu Ile Arg Phe Leu Ile Asn Pro Glu Leu Ile Val
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201      Arg Arg Thr Thr Glu Ile Val Ala Ile Asp Ala Leu His Phe Arg Arg
202                  820                 825                 830
203      Tyr Leu Asp Gln Phe Val Pro Glu Lys Ile Arg Arg Glu Leu Asn Lys
204              835                 840                 845
205      Ala Tyr Cys Gly Phe Leu Arg Pro Gly Val Ser Ser Glu Asn Leu Ser
206          850                 855                 860
207      Ala Val Ala Thr Gly Asn Trp Gly Cys Gly Ala Phe Gly Gly Asp Ala
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209      Arg Leu Lys Ala Leu Ile Gln Ile Leu Ala Ala Ala Val Ala Glu Arg
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212                  900                 905                 910
213      Tyr Ser Met His Thr Phe Leu Thr Glu Arg Lys Leu Thr Val Gly Glu
214              915                 920                 925
215      Val Tyr Lys Leu Leu Leu Arg Tyr Tyr Asn Glu Glu Cys Arg Asn Cys
216          930                 935                 940
217      Ser Thr Pro Gly Pro Asp Ile Lys Leu Tyr Pro Phe Ile Tyr His Ala
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VERIFICATION SUMMARY   DATE: 12/05/2001
PATENT APPLICATION: US/09/973,451   TIME: 15:57:16

Input Set : N:\Crf3\RULE60\09973451.raw
Output Set: N:\CRF3\12052001\I973451.raw

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L:946 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:946 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:12
L:946 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:964 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:14
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L:964 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
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